

## UNDERSTANDING TEACHERS' UPTAKE OF INSTRUCTIONAL NUDGES

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One goal of professional development (PD) is to improve practice by having teachers incorporate what they learn into their existing instruction. We refer to teachers' incorporation of these practices as uptake. Our project seeks to incrementally impact (Star, 2016) teachers' practice through their uptake of instructional nudges, modest instructional suggestions, that are in concert with their existing instructional practices. We designed 16 instructional nudges that varied with regard to whether they were intended to impact curriculum materials (task nudges) or teachers' actions (teacher nudges). For example, Pivot is a teacher nudge that encourages teachers to change the instructional format during their class period (e.g., shifting from whole-class discourse to independent work time) with the goal of increasing student engagement by refocusing the classes' attention. Rate & Review, a task nudge, encourages teachers to provide students with worked examples to rate and review in terms of the quality of the solution in the hopes of growing students' conceptual understanding. The purpose of our study is twofold. First, we seek to understand which of our instructional nudges were high-uptake (Author, 2022). Second, we want to understand what features impact the rate of uptake.

To accomplish our aims, we piloted a PD experience in which we provided instructional nudges to seven algebra teachers. The teachers ranged from novice to veteran and varied in their local context (e.g., school racial and ethnic diversity, location, and socioeconomic status). The main data source for the present study were individual, semi-structured interviews during which each teacher interacted with a heat map activity. The heat map consists of two axes on a continuum of, Hate It to Love It, on the horizontal axis and, Number of Tries, on the vertical axis. Each participant placed each of the 16 instructional nudges on the continuum with respect to their affinity towards the nudge (e.g., hate or love) and the number of times they tried it in their classroom, asking them to think-aloud as they placed each one. Each teacher also completed a survey that aimed to understand their perspectives on their instructional practices, and we conducted three observations across the year to examine teachers' practices both before and after accessing the PD. We coded the interview data for each teacher individually with regard to the factors they considered in using particular nudges and the factors that impacted their view of the nudges. We then looked across the teachers for patterns regarding the factors impacting uptake. We used the survey and observation data to confirm our interview findings.

Our preliminary findings indicate teachers heavily consider the amount of preparation necessary in deciding to take up nudges. In addition, nudges that align with teachers' goals and Kosko, K. W., Caniglia, J., Courtney, S., Zolfaghari, M., & Morris, G. A. (2024). *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Kent State University.

current practices contribute to their uptake. We will share the results of the heat map interviews. Our findings provide important insights for the design and development of PD and suggest the need for further research into features impacting teachers' uptake of PD in their practice.

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